What's stopping the UK public sector from making better use of cloud?

Cloud has fast become ubiquitous, from web-based word processing, spreadsheets and presentation software to cloud-enabled transactions and back-end data repositories and analytics. And 2023's AI explosion would have been impossible without widespread faith in cloud.

But while a few central government departments, notably Home Office and HMRC, forged ahead with well-resourced cloud infrastructure, most public sector departments confined their cloud activity to web-based productivity software and kept more data-sensitive computing onprem. In fact, in 2020, 85% of public sector respondents still agreed that their organisations were reluctant to move to the cloud due to "perceived risk"[1].

Releasing the floodgates

The Covid crisis proved to be the tipping point, showing just how resilient the public sector's cloud systems were. In contrast to more cloud-averse departments, those that had adopted cloud weathered the pandemic exceptionally well, and proved just how robust off-prem infrastructure could be.

Post-Covid, many budget holders had got the message: research shows that while total public sector tech spend grew by just 1.8% in the 2021-22 financial year, cloud's contribution increased by 29%, to £2.2 billion – over 10% of total govt spend of £20.1 billion (a figure which includes all IT goods, services, and IT staff)[2].

The attraction of hybrid cloud

While the private sector is used to failing fast and iterating – and can attract the expertise required to make that work – for the public sector, service continuity is an absolute. With fewer resources and greater accountability, they naturally have to be more cautious. When you consider that a single NHS trust may be using two hundred or more applications, a wholesale change remains out of the question.

So while the research anticipates the public sector's 29% growth trend for cloud to continue – and the signs are that it has – that growth is being driven mostly by SaaS as opposed to infrastructure.

To accelerate the growing momentum across more sectors, the government aims to encourage more competition between a range of suppliers, especially smaller and mid-size providers. The Government also issued an update to its cloud-first policy last year, accepting the prevailing attraction of hybrid infrastructure and giving guidelines on how to procure it successfully, with an emphasis on flexibility and strategic sourcing.

Let's examine some of the challenges and opportunities out there.

Data, AI, net-zero and your budget

The biggest challenge is, as ever, data. Data migration, data classification, data privacy and sovereignty, data offshoring, and data residency all need to be carefully considered.

Other challenges include application migration, legacy infrastructure, refresh cycles, the matter of proving the cost benefits of cloud, and the choice of assigning costs to either Capex or Opex.

On the flip side are cloud's shining opportunities: generative AI, sustainability, and doing more with less.

Harnessing generative AI

The fastest growing technology ever, generative AI's potential for the state sector is just as powerful as for enterprise. Besides offering a productivity boost for creators of spreadsheets, documents, and presentations – summarising complex documents in just seconds, for example – generative AI can scale up customer service with humanlike chatbots, improve fraud detection, and accelerate data mining, to name just a few use cases.

However, preventing AI's tendencies for generating fake information and gender and racial bias are mission critical for the public sector. Moreover, the rapid evolution of AI technologies requires continuous learning and adaptation—a major challenge for multitasking IT staff.

Another factor in considering generative AI is its well-known hunger for energy, raising the importance of the following point:

Sustainability and net-zero

The world's compute resource and the intensity of its use are skyrocketing, and left unchecked, IT would consume around 60% of the world's electricity production by 2040[3] – up from 10% today. Minimising your own IT energy requirements is thus a bottom-line priority, while replacing carbon inputs with renewable energy sources – throughout your supply chain – will benefit the planet, your corporate reputation, and your ability to recruit and retain green-conscious staff.

Doing more, better, with less

One cloud study found that companies that migrated seven or more applications to the cloud suffered 29% less unexpected downtime from IT outages[4]. At the same time, faster data analysis led to better insights and faster decisions, through a 75% improvement in the ease of matching disparate data sets.

Done right, the budget and efficiency benefits of cloud migration are utterly compelling. After all, why buy soon-to-be-obsolete kit and then just use a fraction of its capacity when you can rent a share of someone else's for less? The devil is in the contract details though and the right strategy is all-important. But back in 2019, the Home Office reported saving 40% on their immigration technology cloud costs through some clever hacks including the use of "excess cloud capacity", pro-active compute scheduling and autoscaling[5].

So, how does a non-specialist negotiate that kind of contract?

Step forward a new kind of cloud service…

Negotiating the road ahead

To a newcomer to cloud, the road ahead can look like it has more pitfalls than tar. In an effort to help, Gov.uk's Cloud Guide for the Public Sector[6] lays out four functions essential for a successful cloud strategy: the technical function, contract planning and negotiation, security planning and continuity, and the recruitment, deployment and retention of human capital. Yet it's clear that they are all highly specialised functions and having an experienced insider at your side will be invaluable.

One innovative solution worth investigating is a new service offered by IT service experts Atos, in partnership with AWS, called CloudCatalyst. It's a consultancy service that's designed to clarify the entire cloud procurement process, so that you can take advantage of cloud's advertised flexibility and scalability without the anxiety of unexpected costs.

For further reading, discover how Atos and AWS are enhancing business innovation and productivity through the creative application of **generative AI**, offering new avenues for content creation and process automation.

Delve into how Atos CloudCatalyst **simplifies the cloud migration process** with the AWS Landing Zone Accelerator, ensuring a secure and compliant setup for businesses transitioning to AWS cloud.

Automating migration

Core to the CloudCatalyst offering is the new Landing Zone Accelerator – a solution provided by AWS to streamline the setup of a secure, scalable, and efficient hybrid cloud environment. By leveraging the new AWS Landing Zone Accelerator and Control Tower Technologies, Atos can help public sector organisations get the most out of their transition. From zero cloud footprint to your first production workload or application, Atos's innovative approach simplifies and accelerates the process of building a foundation for – or "bootstrapping" – a well-architected, secure, and compliant hybrid environment.

Besides accelerated application migration, the CloudCatalyst service includes showing you how to exploit a wide range of ready-to-go functionality, so you can build new software and services very quickly and try them out. This is particularly valuable for public sector organisations with a deep understanding of their customers and who have a clear idea of what they need right off the bat. Even better, Atos can offer managed services and take on their SLA responsibilities, sparing you the headaches.

Atos offers a comprehensive end-to-end managed service, guiding clients through every step of their hybrid cloud migration. This service includes managing data location to minimise sovereignty and security concerns and leveraging the breadth of over 200 AWS services.

The migration process is designed to be smooth and disruption-free, providing transformational benefits from day one. Atos's engineering team, well-versed in all AWS offerings, acts as a trusted advisor to recommend the most suitable AWS solutions and migration pathways. This expertise ensures clients not only migrate efficiently but also enhance their cloud capabilities with Atos's guidance.

Continued…

Once in the cloud, Atos provides a 'Managed Services' wrapper, offering tailored support beyond migration. From the enormous variety of AWS solutions on offer, Atos's experts are adept at identifying and configuring the right services to meet the needs of each use case. They create bespoke combined service solutions, enveloped in managed services, ensuring seamless integration and real-time updates. And as your needs evolve, Atos is there to ensure that your cloud infrastructure evolves in tandem.

Refreshingly, Atos is clear that there's ultimately no one-size fits all approach – and a flexible contract can be as important as the technology. So, if after a few months, you find that you need to adjust your approach to cloud, you can do so in the knowledge that you explored all of the opportunities.

Atos under the spotlight

Showcasing our ability for service delivery – under the gaze of hundreds of millions of people – Atos will be the key digital partner for this summer's UEFA Euro 2024™ competition. Our services will include managing the website and app, including live updates of games, results, and stats. View this press release to learn more about our innovative solution.

> **"We look forward to making the UEFA Euro 2024™ an extraordinary digital experience. Benefitting from the extensive expertise acquired by Atos as an IT partner on major sporting events, we are delighted to be working together to deliver the most connected Euro ever."**
>
> Martin Kallen
> UEFA Events SA CEO

Start here

If you'd like to find out more about Atos's CloudCatalyst cloud migration methodology, visit our website here.

1. Statista, 2020
2. GlobalData, 2023
3. Here's Why Developing Countries Will Consume 65% of the World's Energy by 2040, The Atlantic, 2013
4. Business Impact of Cloud Adoption in the Life Sciences Industry, The Hackett Group, 2023
5. How the Home Office's Immigration Technology department reduced its cloud costs by 40%, Government Digital Service, 2019
6. Cloud guide for the public sector, Gov UK, 2023

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